

Remarks:

The above amendments and these remarks are responsive to the Office action dated February 10, 2006, and support the accompanying Request for Continued Examination as a submission under 37 C.F.R. § 1.114(c). Claims 1-30 are pending in the application. In the Office action, the Examiner rejected claims 1-30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,373,551 to Manico et al. ("Manico") in view of "Applied Cryptography," pages 31-41, by Bruce Schneier ("Schneier"). Applicants traverse the rejections, contending that each and every one of rejected claims 1-30 is not obvious.

Nevertheless, to expedite the issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention that applicants would like to patent now, applicants have amended claims 1, 13, 18, and 27. However, applicants reserve the right to prosecute these claims in original and/or distinctly amended form at a later time. Furthermore, applicants have presented remarks showing that claims 1-30 are not obvious over the cited references. Accordingly, applicants respectfully request reconsideration of the rejected claims, and prompt issuance of a Notice of Allowability covering all of the pending claims.

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I. Request for Continued Examination

Applicants are submitting herewith a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114. This Request complies with the requirements of 37 C.F.R. § 1.114. In particular:

- (i) Prosecution in the application is closed, since the last Office action was a final Office action under 37 C.F.R. § 1.113.
- (ii) The Request is accompanied by a submission as set forth at 37 C.F.R. § 1.114(c), specifically, the amendments and remarks set forth herein.
- (iii) The Request is accompanied by the fee set forth at 37 C.F.R. § 1.17(e).

Accordingly, applicants respectfully request grant of their Request for Continued Examination.

II. Claim Amendments

All of the pending claims include the term "public key." Applicants assert that the intended meaning of this term is clear from the specification. Furthermore, applicants believe that a "public key" is a commonly used term of art in the field of cryptography and thus would be clearly understood by one of ordinary skill in the art in interpreting claim meaning and scope in relation to the recited encryption activities. Nevertheless, the Examiner has adopted an unreasonably broad interpretation of this claim term in providing a rationale for an obviousness rejection. This broad interpretation is inconsistent with the use of the term "public key" in both the specification and in relation to encryption. In particular, the Examiner maintained in the last Office action that a private password of the prior art (Manico) is a public key, based, in part, on applicants'

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statement that a public key "generally is not kept secret and is available to others." Applicants assert that the Examiner's position defies logic, as shown in the following table:

	Public key	Private password
Secret?	NO	YES
Available to others?	YES	NO
Encryption key?	YES	NO

In other words, a private password is neither public nor an encryption key.

In rejecting the claims, the Examiner stated that "although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims." Applicants agree with the prohibition against importing unrecited limitations. However, in the Office action, the Examiner corrupted the meaning of public key provided by the specification and the field of cryptography. Accordingly, applicants are compelled to amend the claims to recite "a public key that is a public member of an asymmetric public-private pair of cryptography keys" (claims 1, 18, and 27) or "the private key forming an asymmetric public-private pair of cryptography keys with the public key" (claim 13). Applicants assert that these amendments should not be necessary for patentability, but hope the claim amendments will enable the Examiner to adopt the intended, ordinary interpretation of the term public key in relation to encryption.

III. Claims Rejections – 35 U.S.C. § 103

The Examiner rejected each of the pending claims as being obvious over Manico in view of Schneier. Applicants traverse the rejections, contending that there is no motivation to combine the cited references. Nevertheless, for the reasons set forth above in Section II and to underscore the complete absence of any motivation to combine the cited references, applicants have amended claims 1, 13, 18, and 27. Each of independent claims 1, 13, 18, and 27, and all of their dependent claims, are patentable for the reasons set forth below.

A. Claims 1-12

Claim 1 is directed to a method of encrypting an image:

1. (Currently Amended) A method of encrypting an image produced from physical information, comprising:
 - digitizing spatially-distributed physical information to create a digital image of the information;
 - digitizing a physical tag associated with the physical information to create a digital tag, the digital tag being readable to identify a public key **that is a public member of an asymmetric public-private pair of cryptography keys;**
 - reading the digital tag to identify the public key; and
 - encrypting the digital image with the identified public key.

Claim 1 is patentable over Manico and Schneier because there is no teaching, suggestion, or motivation to combine these references.

Manico relates to a system for communicating digital images generated from photographic film. The system involves photographic film (and/or a cassette) having a unique identification code. For example, Figure 2 (reproduced below) of Manico illustrates a film cartridge 70 with respective human and machine-readable ID codes 90,

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100. An identification tab is included with the photographic film. For example, Figure 3 of Manico illustrates a mailing envelope 110 with a tear-off tab 120. The tab is imprinted with a unique URL address 130 and a password or "security code" 140. The URL address links the tab to the film ID code. In use, a user takes pictures with the photographic film and then sends the film to a film developer in the mailing envelope, while retaining the tear-off tab. The URL address and password on the tab then allow the user to access and receive, over a computer network, digital photographs produced from the developed film.

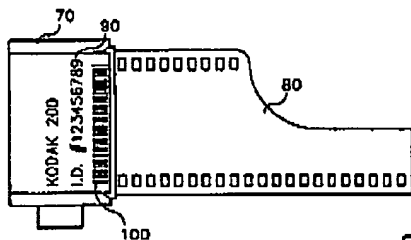


FIG. 2

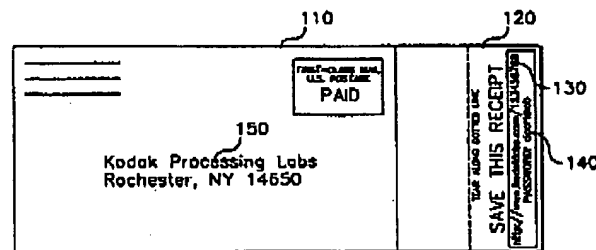


FIG. 3

Manico discloses access to digital photographs over a computer network, with the access being restricted by a password. This restricted access is not disclosed to involve any encryption of the digital photographs themselves. In other words, the password identifies the digital photographs for both the film processor and the photographer. Accordingly, providing the password makes the digital images available to the photographer, instead of being used to encrypt (or decrypt) the images.

The Examiner suggested that Manico discloses a password/security code "readable to identify a public key," as recited by claim 1. Applicants strongly disagree with this assertion for the reasons set forth above in Section II. However, applicants

have amended claim 1 to clarify the intended meaning of the term "public key." In particular, the public key now is recited to be "a public member of an asymmetric public-private pair of cryptography keys." The security code of Manico does not identify a cryptography key of any type, and particularly not a public member of an asymmetric pair of keys. In particular, the password is private, not public, and is not disclosed to be associated with any encryption or decryption process. More generally, applicants assert that Manico does not teach or suggest the use of any type of cryptography for any purpose.

Schneier involves encryption of messages and documents using cryptography with a public key. However, there is no teaching, suggestion, or motivation to introduce any of the cryptographic methods disclosed by Schneier into the non-cryptographic approach disclosed by Manico.

In summary, it would not have been obvious to combine Manico with Schneier to produce the invention of claim 1. Claim 1 thus should be allowed. Claims 2-12, which depend from claim 1, also should be allowed for at least the same reasons as claim 1.

B. Claims 13-17

Claim 13 is directed to a method of sending an encrypted image:

13. (Currently Amended) A method of sending an encrypted image of a document, comprising:

disposing a physical tag on a document, the physical tag having a code that carries a public key;

digitizing the document to create a digital image that includes a digital representation of the code;

reading the digital representation of the code to obtain the public key;

encrypting the digital image with the obtained public key; and

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sending the encrypted image to a recipient that holds a private key, the private key forming an asymmetric public-private pair of cryptography keys ~~a key pair~~ with the public key.

Claim 13 is patentable over Manico and Schneier because it would not have been obvious to combine these references to achieve the invention of claim 13, for at least the same reasons as those described above in relation to claim 1. Claim 13 thus should be allowed. Claims 14-17, which depend from claim 13, also should be allowed for at least the same reasons as claim 13.

C. Claims 18-26

Claim 18 is directed to a device for encrypting an image:

18. (Currently Amended) A device for encrypting an image produced from spatially-distributed physical information, the device comprising:

at least one digitizing mechanism adapted to digitize spatially-distributed physical information to create a digital image, and to digitize a physical tag associated with the physical information to create a digital tag, the digital tag being readable to identify a public key that is a public member of an asymmetric public-private pair of cryptography keys; and

a processor operatively connected to the digitizing mechanism and adapted to receive the digital image and digital tag from the at least one digitizing mechanism, to read the digital tag to identify the public key, and to encrypt the image with the identified public key.

Claim 18 is patentable over Manico and Schneier because it would not have been obvious to combine these references to achieve the invention of claim 18, for at least the same reasons as those described above in relation to claim 1. Claim 18 thus should be allowed. Claims 19-26, which depend from claim 18, also should be allowed for at least the same reasons as claim 18.

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D. Claims 27-30

Claim 27 is directed to a program storage device:

27. (Currently Amended) A program storage device readable by a processor, tangibly embodying a program of instructions executable by the processor to perform method steps for encrypting an image produced from physical information, comprising:

digitizing spatially-distributed physical information to create a digital image of the information;

digitizing a physical tag associated with the physical information to create a digital tag, the digital tag being readable to identify a public key that is a public member of an asymmetric public-private pair of cryptography keys;

reading the digital tag to identify the public key; and

encrypting the digital image with the identified public key.

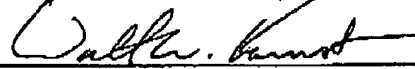
Claim 27 is patentable over Manico and Schneier because it would not have been obvious to combine these references to achieve the invention of claim 27, for at least the same reasons as those described above in relation to claim 1. Claim 27 thus should be allowed. Claims 28-30, which depend from claim 27, also should be allowed for at least the same reasons as claim 27.

IV. Conclusion

Applicants believe that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, applicants respectfully request that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.

Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to Examiner T. Teslovich, Group Art Unit 2137, Assistant Commissioner for Patents, at facsimile number (571) 273-8300 on April 10, 2006.



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